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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,933	12/12/2003	John Jackson	4839.001	2244

7590

09/09/2005

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EXAMINER

NEGRON, ISMAEL

ART UNIT

PAPER NUMBER

2875

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/734,933	JACKSON, JOHN	
	<b>Examiner</b>	<b>Art Unit</b>	
	Ismael Negron	2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☒ Claim(s) 11-13 and 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)     | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Title*

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Lighting System and Device for Automobile Wheels.

### *Drawings*

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "18" has been used to designate both "*transparent diffusion areas*" (page 4, line 6) and "*translucent material*" (page 4, line 7). Also note the following:

- reference character "22", used to designate "*light router*" (page 4, line 9), "*pipe*" (page 4, line 9) and "*automotive wheel*" (page 6, line 4);
- reference character "26", used to designate "*filter*" (page 4, line 11) and "*window*" (page 4, line 22);
- reference character "18", used to designate "*transparent diffusion areas*" (page 4, line 6), "*translucent material*" (page 4, line 7), "*lens*" (page 5, line 1) and "*plastic diffusion areas*" (page 6, line 21);

- reference character “20”, used to designate “*reflective foil pieces*” (page 4, line 7) and “*reflective material pieces*” (page 5, line 17);
- reference character “16”, used to designate “*hub*” (page 4, line 4) and “*metal hub*” (page 5, line 20);
- reference character “14”, used to designate “*spokes*” (page 3, line 21) and “*metal spokes*” (page 5, line 21); and
- reference character “12”, used to designate “*rim*” (page 4, line 4) and “*metallic rim*” (page 6, line 18).

The applicant is advised that the reference characters must be properly applied, with no single reference character being used for two different parts or for a given part and a modification of such part. See MPEP §608.01(g). Correction is required.

Applicant is further advised that this action only exemplifies the objections to the drawings, applicant's cooperation is requested in correcting all the occurrences of the cited, or any other errors of which applicant may become aware in the specification.

3. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the relationship between the light source and the other elements of the claimed invention as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d).

4. The drawings are objected to under 37 CFR 1.83(a): The drawings must show every feature of the invention specified in the claims. Therefore, the “**hollow light**

**transmitting medium**" (as recited in claims 7, 8 and 11-13), **"means for blocking out foreign objects"** (as recited in Claim 8), **"means for securing and isolating shock and vibration"** (as recited in Claim 15), **"groove that acts as an optical grating"** (as recited in Claim 17), and **"spokes having fins"** (as recited in Claim 18) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

5. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections***

6. Claim 11 is objected to because of the following informalities: it recites the limitation "*the hollow light transmitting medium*" in line 1. There is insufficient antecedent basis for this limitation in the claim.

The cited lack of antecedent instances do not amount to indefiniteness under 35 U.S.C. 112, second paragraph, since it is readily apparent that the claims are referring back to the hollow light transmitting medium recited in previous Claim 7, however, Claim 7 is not related to claim 11. The examiner respectfully suggests amending Claim 11 to read:

A light system as recited in claim 4 7, wherein said hollow light transmitting medium comprises:  
  
at least one pipe.

7. Claim 12 is objected to because of the following informalities: it recites the limitation "*the hollow light transmitting medium*" in line 1. There is insufficient antecedent basis for this limitation in the claim.

The cited lack of antecedent instances do not amount to indefiniteness under 35 U.S.C. 112, second paragraph, since it is readily apparent that the claims are referring back to the hollow light transmitting medium recited in previous Claim 7, however, Claim 7 is not related to Claim 12. The examiner respectfully suggests amending Claim 12 to read:

A light system as recited in claim 4 7, wherein said hollow light transmitting medium comprises:  
at least one fiber optic line.

8. Claim 13 is objected to because of the following informalities: it recites the limitation "*the hollow light transmitting medium*" in line 1. There is insufficient antecedent basis for this limitation in the claim.

The cited lack of antecedent instances do not amount to indefiniteness under 35 U.S.C. 112, second paragraph, since it is readily apparent that the claims are referring back to the hollow light transmitting medium recited in previous Claim 7, however, Claim 7 is not related to Claim 13. The examiner respectfully suggests amending Claim 13 to read:

A light system as recited in claim 4 7, wherein said hollow light transmitting medium comprises:  
a plurality of pipes.

9. The applicant is advised that in comparing the claims with the Prior Art the Examiner assumed claims 11-13 to be dependent on Claim 7, not on Claim 1.

10. Claim 17 is objected to because of the following informalities: it recites the limitation "*said reflective material*" in line 1. There is insufficient antecedent basis for this limitation in the claim.

The cited lack of antecedent instances do not amount to indefiniteness under 35 U.S.C. 112, second paragraph, since it is readily apparent that the claims are referring back to the previously recited reflective surface (recited in Claim 1, line 4). However, appropriate correction is required to place the claims in proper form for allowance.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-6, 14-16 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by GORDON (U.S. Pat. 6,220,733).

12. GORDON discloses an illumination system for a vehicle wheel, such system having:

- **a light diffusion disk (as recited in Claim 1), Figure 1, reference number 10;**
- **the disk including at least one translucent area (as recited in Claim 1), Figure 1, reference number 14;**



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- **the disk including at least one reflective surface (as recited in Claim 1), column 4, lines 24-31;**
- **the disk being mountable proximate the vehicle wheel (as recited in Claim 1), column 3, lines 25-27;**
- **a light source (as recited in Claim 1), Figure 1, reference number 16;**
- **the light source being for facilitating receipt of light by the light system (as recited in Claim 1), column 3, lines 32-36;**
- **means for routing the light produced by the light source (as recited in Claim 1), column 3, lines 40-47;**
- **the means for routing being in optical communication with the light source and the disk (as recited in Claim 1), as seen in figures 2-6;**
- **the means for routing directing light from the light source toward the disk (as recited in Claim 1), column 3, lines 40-47;**
- **a hub (as recited in Claim 2), inherent;**
- **the hub having a plurality of apertures for receiving lug nuts that secure the wheel to the vehicle (as recited in Claim 2), inherent;**
- **a rim (as recited in Claim 3), as seen in Figure 1;**
- **a plurality of spokes (as recited in Claim 3), as seen in Figure 1;**

- **the spokes extending from the hub to the rim (as recited in Claim 3), as seen in Figure 1;**
- **the spokes defining a plurality of translucent areas (as recited in Claim 3), column 3, lines 32-36;**
- **the reflective surfaces being imbedded in the translucent areas (as recited in Claim 3), column 4, lines 24-31;**
- **a filter (as recited in Claim 4), Figure 7, reference number 56;**
- **the filter being disposed over at least one end of the light routing means (as recited in Claim 4), as seen in Figure 7;**
- **the filter being for blocking out foreign objects that could contaminate or cloud the light routing means (as recited in Claim 4), column 5, lines 56-62;**
- **the filter including at least one colored filter to produced colored light (as recited in Claim 5), as evidenced by column 4, lines 28-31;**
- **the filter including a plurality of colored filters to produce a plurality of different colored light (as recited in Claim 6), as evidenced by column 4, lines 28-31;**
- **the light source producing light of at least one color (as recited in Claim 14), inherent;**
- **means for securing the light system to a vehicle (as recited in Claim 15), column 3, lines 25-27;**

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- **means for isolating shock and vibration to prevent damage to the light source (as recited in Claim 15), as evidenced by column 2, lines 16-24;**
- **the securing means including means for mounting the disk between the brake and the wheel (as recited in Claim 15), as seen in Figure 7;**
- **the translucent areas including at least one color for coloring the light from the light source (as recited in Claim 16), column 4, lines 28-31;**
- **the reflective surface including at least one groove that acts as an optical grating for diffracting light (as recited in Claim 17), column 4, lines 41-48; and**
- **means for controlling the intensity of the light (as recited in Claim 19), Figure 10, reference number 62.**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 7-13, 18 and 20 rejected under 35 U.S.C. 103(a) as being unpatentable over GORDON (U.S. Pat. 6,220,733).

14. GORDON discloses an illumination system for a vehicle wheel, such system having:

- **a light diffusion disk (as recited in Claim 1), Figure 1, reference number 10;**
- **the disk including at least one translucent area (as recited in Claim 1), Figure 1, reference number 14;**
- **the disk including at least one reflective surface (as recited in Claim 1), column 4, lines 24-31;**
- **the disk being mountable proximate the vehicle wheel (as recited in Claim 1), column 3, lines 25-27;**
- **a light source (as recited in Claim 1), Figure 1, reference number 16;**
- **the light source being for facilitating receipt of light by the light system (as recited in Claim 1), column 3, lines 32-36;**
- **means for routing the light produced by the light source (as recited in Claim 1), column 3, lines 40-47;**
- **the means for routing being in optical communication with the light source and the disk (as recited in Claim 1), as seen in figures 2-6;**

- **the means for routing directing light from the light source toward the disk (as recited in Claim 1), column 3, lines 40-47;**
  - **the light routing means having a light transmitting medium (as recited in Claim 7), figures 2-6, reference number 14;**
  - **the light transmitting medium having a first and a second end (as recited in Claim 7), as seen in figures 2-6;**
  - **means for blocking out foreign objects that could contaminate or cloud the light routing means (as recited in Claim 8), column 5, lines 56-62;**
  - **means for blocking being disposed over at least one end of the light transmitting medium (as recited in Claim 8), as seen in Figure 7;**
  - **at least one filter (as recited in Claim 9), column 4, lines 28-31;**
  - **the filter having at least one colored filter to color the light from the light source (as recited in Claim 9), column 4, lines 28-31;**
  - **the light transmitting medium having at least one light pipe (as recited in Claim 11), figures 2-6, reference number 14;**
  - **the light transmitting medium having at least one fiber optic line (as recited in Claim 12), figures 2-6, reference number 14;**
- and

- **the light transmitting medium having a plurality of pipes (as recited in Claim 13), Figure 1, reference number 14; and**
- **means for controlling the intensity of the light (as recited in Claim 19), Figure 10, reference number 62.**

15. GORDON discloses all the limitations of the claims, except:

- the light transmitting medium being hollow (as recited in Claim 7);
- the spokes having fins (as recited in Claim 18);
- the hub having a metal to dissipate heat (as recited in Claim 18);  
and
- a microprocessor in electrical communication with the light source (as recited in Claim 20).

16. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to use a hollow light transmitting medium instead of the light transmitting medium disclosed by GORDON, since the applicant has not disclosed that using a hollow light transmitting medium solves any problem or is for a particular reason. It appears that the claimed invention would perform equally well with light transmitting medium as disclosed by GORDON. In addition, the Examiner takes Official Notice that the use of hollow light transmitting medium is old and well known in the illumination art.

17. Regarding the spokes having fins and the hub including metal to dissipate heat (as recited in Claim 18), it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to use spoked fins and a metal hub for dissipating heat produced by the LED light sources of GORDON, since the Examiner takes Official Notice that the use of finned metallic members in combination with LED light sources is old and well known in the art. One would have been motivated to dissipate heat produced by the Led light sources to prevent such light sources from over heating, since the illumination efficiency of LED light sources decrease substantially once the maximum operating temperature is reached.

18. Regarding a microprocessor being electrical communication with the light source (as recited in Claim 20), it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to use a microprocessor for controlling the light sources of GORDON to increase the decorative value of the illumination system by being able to produce a plurality of different illumination patterns.

***Relevant Prior Art***

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**Dowering et al.** (U.S. Pat. 1,625,798), **Bradway** (U.S. Pat. 3,113,727), **Hinrichs** (U.S. Pat. 4,381,537), **O'Donnell** (U.S. Pat. 5,497,302) and **Lee** (U.S. Pat. App. Pub. No. 2003/0169595) disclose a plurality of different illumination systems for providing light to vehicle wheels, such systems including a light source, light diffusing means and light reflecting means in communication with the light source, and means for attaching the system to the vehicle wheel.

***Conclusion***

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ismael Negron whose telephone number is (571) 272-2376. The examiner can normally be reached on Monday-Friday from 9:00 A.M. to 6:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra L. O'Shea, can be reached on (571) 272-2378. The facsimile machine number for the Art Group is (703) 872-9306.



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21. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, go to <http://pair-direct.uspto.gov>. Should you have questions on access to Private PAIR system, contact the Electronic Business Center (EBC) toll-free at 866-217-9197.

  
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**THOMAS M. SEMBER**  
**PRIMARY EXAMINER**

September 3, 2005